

REMARKS

Applicant respectfully traverses and requests reconsideration.

Applicant wishes to thank the Examiner for the notice that claim 20 is allowed.

As a preliminary matter, Applicant respectfully requests entry of both of the Information Disclosure Statements submitted by Applicant on July 13, 2004 and November 16, 2004, respectively as Applicant's records indicate that they were not received from the Examiner.

The Abstract has been objected to for exceeding 150 words. The Abstract has been amended.

Claim 30 is objected to due to a typographical error. This error has also been corrected. As such, Applicant respectfully requests withdrawal of the objection.

Claim 22 stands rejected under 35 U.S.C. §112, 2nd paragraph as allegedly being indefinite. Applicant has corrected a typographical error. As such, Applicant respectfully requests withdrawal of this rejection.

Claim 1 stands rejected under 35 U.S.C. §102(b) as being anticipated by Grigor. The Grigor reference is directed to a method and apparatus for memory allocation that employs a mapping operation used by a plurality of processors so that when a processor requests additional memory, if there is sufficient free memory between the processors' respective portions, the appropriate amount of free memory can be allocated to the requesting processor. It appears that the Grigor reference may have been misapprehended. Applicant claims, for example, a first and second graphics device and a first video output port that is coupled to an output of each of the first and second graphics devices. A second video output port is coupled to a video component output of the second graphics device. The office action alleges that the memory 101 of the Grigor reference is a "first video output port" (see page 4 of office action). Applicant respectfully submits that "memory" is not a "video output port".

Memory stores information whereas a video output port outputs, in one example, an output component signal. Accordingly, since Grigor teaches a different structure, the claim is in condition for allowance.

Claim 19 stands rejected under 35 U.S.C. §102(e) as being anticipated by Hung. Hung is directed to a Z buffer based interpenetrating object detection for an antialiasing system. In Hung, a graphics processor compares Z buffer values of 3D objects to detect and mark interpenetrating pixels. A tag buffer stores marked values for antialiasing by oversampling, area based blending, alpha edge or other pixel processing scheme. Supersampling antialiasing is also used in an attempt to reduce sampling of select interpenetration elements. Applicant claims a completely different method and claims a method for providing a video signal that, among other things, generates first video output components such as an R, G, B, Y, Pr, Pb, or any other video output component that may be used for example to display video. In contrast, the cited portion of the Hung reference actually refers to a Z value 28 which the office action alleges is a first signal that is representative of a first video output component. Applicant respectfully submits that it appears that the Hung reference may have been misapprehended as a Z value is not a video output component but instead is a value used to, for example, determine whether or not to process objects for later display. As such, the cited Z value 28 is not a video output component as claimed and therefore the claim is in condition for allowance. Applicant also notes that the second video output component is alleged to be a current Z value 30. Applicant respectfully asserts a Z value is not a video output component as known in the art. As such, the Hung reference cannot anticipate the claims. Accordingly, claim 19 is in condition for allowance.

Claim 18 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Grigor in view of Pesto. Applicant respectfully reasserts the relevant remarks made above with

respect to claim 1 and as such, this claim is also in condition for allowance. As such, the claim is in condition for allowance. Applicant also notes that the current application is also owned by the owner of the Grigor reference.

Claim 21 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Hung in view of Krenik. Applicant respectfully reasserts the relevant remarks made above with respect to claim 19. Accordingly, this claim is also in condition for allowance.

Claim 22 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Hung in view of Davis. Applicant respectfully reasserts the relevant remarks made above with respect to claim 19 and as such, this claim is also in condition for allowance. In addition, this claim adds additional novel and non-obvious subject matter.

Claim 29 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Kehlet in view of Emery and further in view of Grigor. The Kehlet reference is directed to scene synchronization for multiple computer displays and is directed to a completely different system than that claimed by Applicant. For example, claim 29 requires, among other things, that a first video output port is coupled to both a first and second graphics device and wherein a first graphics device renders a frame of video and provides the rendered frame to the first video output and wherein the second graphics device renders an adjacent frame of video and provides the adjacent frame to the first video output port. As such, the same multiframe video is output by two different graphic devices through a common video output port. Kehlet teaches an opposite approach.

As described in Kehlet, Kehlet utilizes a system wherein each graphics accelerator 40a-40c is independent and outputs a portion of a frame to each of the different display devices. Kehlet is directed to, for example, a flight simulator system wherein each scene is drawn by a different graphics accelerator for a different display device so that when the three display devices are positioned next to one another, for example, it displays a frame of

landscape over all three devices. As such, none of the devices outputs the same video and none of the graphics accelerators output video to a common port as none of the accelerators are used to couple to the same display device. Accordingly, Kehlet does not utilize different graphics devices to output adjacent frames of video to a first output port as alleged in the office action.

Applicant agrees that Kehlet does not teach, among other things, that two different graphics devices render the frame of video in an adjacent frame of video and that Kehlet does not include a second video output port coupled to the first input and output of the second graphics device. It appears that Emery has been cited for this proposition. However, Applicant respectfully submits that Emery teaches away from the claimed invention and from the Kehlet reference. Emery in fact teaches a pixel by pixel determination of what data is output for a single frame. In other words, the CPUs described in Emery output portions of the same frame to a single output port. For example, as described in column 3, lines 21-42, the purpose of the Emery invention is to allow two or more frame buffers outputs to be combined for a single frame. “This allows multiple overlapping images to be displayed, selectable by the user on a pixel by pixel basis.” Again, Emery does not teach, two different graphics devices that each render a different frame of video where one renders one frame and the other renders an adjacent frame. To the contrary, a single frame is generated in Emery using two different frame buffers. Accordingly, Emery does not teach the alleged claim language and the combination of Kehlet and Emery fail to disclose the claimed invention. Accordingly, claim 29 is in condition for allowance.

In addition, the office action notes that both Kehlet and Emery fail to include a second video output port coupled to the first video component output of the second graphics device. However, as noted, Emery actually teaches away from the claimed subject matter since again it describes a single frame being output. In addition, Kehlet describes yet another differing

approach from that described in Emery and from that claimed, because each graphics accelerator outputs a completely different scene and each graphics accelerator does not share a common output port. Nor is an alternating or adjacent frame being processed for output over a common port. Accordingly as noted, for these reasons alone, the claim is in condition for allowance. The Grigor reference has allegedly been cited as teaching a second video output port coupled to the first video component output of the second graphics device. However, as noted above, Applicant respectfully points out that the memory 101 is not a video output port as alleged in the office action and as such, the claims are in condition for this reason as well.

Claims 30, 31, 34, 38 and 39 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kehlet in view of Emery. As to claim 30, Applicant respectfully reasserts the relevant remarks made above with respect to the Kehlet and Emery references and as such, this claim is also in condition for allowance. For example, it is admitted in the office action that Kehlet does not teach two different graphics devices rendering first and second frames of video and a common port operatively coupled to receive the first and second frames of video rendered from either of the first and second graphics devices. As noted above, Emery also fails to teach such a structure as only a single frame is output in Emery that is combined from two different CPUs. As such, there is no common port that receives first and second frames of video as first and second frames of video are not generated by the CPUs 31 and 32. Accordingly, the claim is in condition for allowance.

With respect to claims 31, 34, 38 and 39, Applicant respectfully submits that each of these claims adds additional novel and non-obvious subject matter and are also allowable as depending from an allowable base claim.

Claim 32 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Kehlet in view of Emery and further in view of Wunner. Applicant respectfully reasserts the

relevant remarks made above with respect to the Kehlet and Emery references and as such, this claim is also in condition for allowance.


Claims 33, 36 and 37 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kehlet in view of Emery and further in view of Deering. Applicant respectfully reasserts the relevant remarks made above with respect to the Kehlet and Emery references and as such, these claims are also in condition for allowance. In addition, these claims add additional novel and non-obvious subject matter.

Claim 35 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Kehlet in view of Emery and further in view of Eichenberger. Applicant respectfully reasserts the relevant remarks made above with respect to the Kehlet and Emery references and as such, this claim is also in condition for allowance. Moreover, the claim adds additional novel and non-obvious subject matter.

Applicant respectfully submits that the claims are in condition for allowance and respectfully requests that a timely Notice of Allowance be issued in this case. The Examiner is invited to contact the below listed attorney if the Examiner believes that a telephone conference will advance the prosecution of this application.

Respectfully submitted,

Date: 2-28-05

By: 
Christopher J. Reckamp
Registration No. 34,414

Vedder, Price, Kaufman & Kammholz, P.C.
222 N. LaSalle Street
Chicago, Illinois 60601
PHONE: (312) 609-7599
FAX: (312) 609-5005